COMMUNICABLE DISEASE CENTER







Week Ending

December 18, 1965

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

VIBRIO FETUS INFECTIONS IN HUMANS OREGON

CONTENTS

During November 1965, two cases of dibrio fetus infection in children were brought to the attention of the Oregon State Board of Health by the Bacteriology Lab oratory of the Pediatrics Department of the Chiversity

of Oregon Medical School.

The first case reported was in a 24 to 28 week premature baby born in the Medical School Hospital on August 25, 1965. At delivery, the lower extremities, back and abdomen of the infant showed extensive petechiae and the body surface was covered by a foul smelling oily film. A few hours after birth the baby developed respiratory

distress with rales noted in the chest; it died after 14

JAN 1946 Supper lance Summary Vibrio letus Infections in Humans - Oregon. 425

> hours. Spinal fluid and blood from the baby were positive on culture for Vibrio fetus at the Pediatrics Department Laboratory; these findings were later confirmed by the by the Laboratory Branch of CDC. Blood cultures from the mother were negative but her serum at 1:1280 agglutinated the vibrios cultured from the baby.

> > (Continued on page 426)

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES (Cumulative totals include revised and delayed reports through previous weeks)

	50th WEEK	ENDED		CUMULATIVE, FIRST 50 WEEKS				
DISEASE	DECEMBER 18, 1965	DECEMBER 12, 1964	MEDIAN 1960 — 1964	1965	1964	MEDIAN 1960 – 1964		
Aseptic meningitis Brucellosis Diphtheria Encephalitis, primary infectious Encephalitis, post-infectious	38 5 3 30 9	35 3 11 50 3	34 6 12 	2,052 240 154 1,828 634	2,076 383 286 3,120 763	2,475 388 444 		
Hepatitis, infectious including serum hepatitis Measles Meningococcal infections Poliomyelitis, Total Paralytic Nonparalytic Unspecified	609 2,866 66 2 2 -	747 3,249 64 — — — —	945 3,939 45 6 5	32,430 259,309 2,918 57 41 10 6	36,415 481,767 2,683 114 89 14	41,385 421,463 2,116 862 683		
Streptococcal Sore Throat and Scarlet fever Tetanus Tulare 'a Typhoid fever	7,917 3 3 4	8,887 5 3 8	7,711 9	375,078 269 236 435	377,392 266 313 436	304,988 611		
Rabies in Animals	67	120	51	4 115	4 356	3 470		

NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	7	Rabies in Man: • • • • • • • • • • • • • • • • • • •	1
Botulism:		Smallpox: · · · · · · · · · · · · · · · · · · ·	
Leptospirosis: Mass 1, Hawaii - 3, Iowa - 4, Calif 2	64	Trichinosis: · · · · · · · · · · · · · · · · · · ·	107
Malaria: Pa2	81	Typhus —	
Plague:	6	Murine:	
Psittacosis:	48	Rky. Mt. Spotted:	260
Cholera:	2		j

VIBRIO FETUS INFECTIONS IN HUMANS - OREGON

(Continued from front page)

The mother gave no history of recent illness. In the past she had had two miscarriages but during this pregnancy the only unusual event until the premature birth had been a temporary heavy blood-stained discharge during the fourth month. At the time of the delivery there had been a low grade temperature which soon returned to normal without any treatment being given. The family lives on a farm which has a few cattle and swine but the mother gave no history of direct contact with the animals. However, in view of the serological findings associated with a premature birth she is presumed to have been a subclinical case of *Vibrio fetus* infection.

The second case reported was in a 2½-year-old child admitted to the same hospital on September 1 of this year. The history prior to admission was of a 3 weeks-fever of inconstant pattern, the highest temperature noted being 102°F. There had been an increasing anorexia for 3 or 4 days with rhinorrhea and mild joint and muscle pains. This was followed by the appearance of several small swellings in the left side of the neck. When examined on entry to the hospital there was a large, soft submandibular swelling associated with a few discrete and firm nodules in the left side of the neck. There was no general adenopathy and no other abnormal findings were noted.

The child's temperature later rose to 104°F and there was an increase in the white count to 24,000 with a 29 percentlymphocytosis. Skin tests were tuberculin negative and were also negative for brucellosis, coccidiomycosis and histoplasmosis. Four blood cultures were also made and the fourth proved positive for *Vibrio fetus* after 6 days. The child was then given penicillin intramuscularly in daily doses of 600,000 units. The fever quickly resolved, there was a gradual decrease in the size of the lymph nodes and the child made a good recovery.

This child's family also lived on a farm and there was a history of drinking raw milk for some time prior to the illness.

Epidemiological investigations at the two farms, which are 35 miles apart, included blood cultures and vaginal smears from cattle and swine. The latter were all negative for *Vibrio fetus* and no primary source of infection has been identified.

(Reported by Dr. Monroe A. Holmes, Acting Director, Epidemiology Section, Oregon State Board of Health; the Professional Staff of the Pediatrics Department of the University of Oregon Medical School; Dr. Gerda Benda and Dr. William Austin, Attending Physicians of the two patients; and the Laboratory Branch of the CDC.)

Editorial Note: Vibrio fetus infections cause vibriosis in cattle and sheep which is a common cause of abortion and sterility in infected herds. The infection is uncommon in man and according to Hull (1963), only 22 human infections, all in adults, had been recorded up to that time; eight were in France and the remainder in the United States. Four of these cases occurred in women, placentitis and abortion with fever being the predominant symptoms. As far as is known the two laboratory confirmed cases above are the first to be described in children. The first documented human strain of V. fetus was isolated in 1947.

Reference:

Hull, Thomas G.: Diseases transmitted from animals to man. Thomas Press, Springfield, Illinois, 1963, V:pp 170-185.

SURVEILLANCE SUMMARY SHIGELLOSIS - July 1 - September 30, 1965

During the third quarter of the year, 2,248 shigella isolations from human sources have been reported from 52 centers. Compared to the total reported from 49 centers during the previous quarter, this represents an increase of 733 isolations (MMWR, Vol. 14, No. 42). The numbers of isolations reported indicate a seasonal pattern of increased activity in July going on to a peak of incidence in September. Since reporting was first instituted in January 1964, seventeen States have been reporting shigella isolations consistently. The data from these

States indicate a decrease in the totals reported during the first 9 months of 1965 although the seasonal distribution is similar to the comparable period in 1964.

The age and sex distribution of isolations during the third quarter is consistent with past experience as is the high concentration of isolations among children. Almost 70 percent of isolations were from children under 10 years of age, with children between the ages of 1 and 4 accounting for 40 percent of the total. Accumulating

evidence suggests that there is no difference in the frequency of occurrence of shigellosis in the two sexes.

Isolations from family groups with more than one member infected account for 26.8 percent of the total during the quarter.

There were 13 different serotypes of human shigellae determined and of these, 6 serotypes accounted for 85 percent of all isolations. Table 1 shows the order of frequency of the six most common serotypes during the third quarter, in comparison to the second quarter. The major numbered subgroups of S. flexneri only have been indicated for these two quarters as all States do not undertake final serotyping. The 24-month distribution in the last column is, however, based on final serotyping.

Table 1 Frequency of Shigella Serotypes - Human Sources

	Third Quar	Previous Quarter*	24-Month Period		
Rank	Serotype	No.	07/0	%	%
1	S. sonnei	728	32.4	34.1	37.9
2	S. flexneri 2	604	26.9	25.8	(2a) 24.9
3	S. flexneri 3	270	12.0	11.0	(3a) 9.8
4	S. flexneri 4	176	7.9	6.3	(4a) 6.1
5	S. flexneri 6	86	3.8	3.6	6.0
6	S. flexneri 1	81	3.6	5.7	(2b) 5.5

^{*}The 24-month period figures give a percentage of the total of 12,474 isolations which is calculated according to the distribution of a sample finally serotyped.

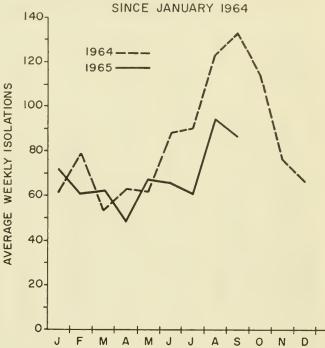
The regional differences in distribution of the S. flexneri and S. sonnei isolations remain much the same as in previous surveillance summaries. In the southern States, S. flexneri accounts for between 70 and 80 percent of all isolations while in the northern States the range is between 40 and 60 percent, reflecting an apparently greater seasonal incidence in the third quarter. S. sonnei isolations throughout the United States have been reported at a relatively constant rate.

The 26 isolations of shigella from nonhuman sources during the third quarter of 1965 is in Table 2.

(Reported by the Shigella Surveillance Unit, CDC.)

Figure 1.

SEASONAL INCIDENCE OF REPORTED SHIGELLA ISOLATIONS FOR 17 STATES* WHICH HAVE REPORTED



^{*}ALASKA, ARIZONA, HAWAII, ILLINOIS, KANSAS, MARYLAND, NEW JERSEY, NEW MEXICO, NORTH CAROLINA, NORTH DAKOTA, OHIO, OKLAHOMA, OREGON, SOUTH DAKOTA, TENNESSEE, TEXAS, VERMONT.

Table 2
Frequency of Shigella Serotypes — Nonhuman Sources

Serotype	No. of Isolations	Reporting Center	Source
S. flexneri	5	Mich.	Monkeys
S. flexneri 2a	3	Texas	Lab. stock cultures
S. flexneri 2b	2	Texas	Lab. stock cultures
S. flexneri 3	13	Md.	Monkeys
	1	Pa.	Monkey
S. flexneri 4b	1	II1.	Monkey
S. sonnei	1	Ill.	Monkey
TOTAL	26		

BOTULISM - FULLERTON, CALIFORNIA

Two cases of botulism, following the ingestion of home-canned albacore in a salad, were reported in the MMWR, Vol. 14, No. 40. Laboratory investigations were conducted at the California Department of Public Health

Laboratory, the Hooper Foundation and the CDC Laboratory.

An extract of the salad examined at each of the laboratories proved to be toxic to mice. The toxin was (Continued on page 432)

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES FOR WEEKS ENDED

DECEMBER 18, 1965 AND DECEMBER 12, 1964 (50th WEEK)

			Encopi	nalitis			Poliom	yelitis			Dinhe	howin
	Asep								Dipht	neria		
Area	Menin	gitis	Primary	Post-Inf.	Т	Total Cases			Paralytic Cumulative			
		ļ					ative					Cum.
	1965	1964	1965	1965	1965	1965	1964	1965	1965	1964	1965	1965
UNITED STATES	38	35	30	9	2	57	114	2	41	89	3	154
NEW ENGLAND	-	1	2	_	-	_	2	_	_	2	_	2
Maine	-	_	-	-	-	-	1	-	_	1	_	-
New Hampshire	-	-	-	-	-	-	-	-	-	-	-	-
Vermont Massachusetts	_	-	1	_	· -	-	_		-	-	-	-
Rhode Island	_	1	1	_	-	-	_	_	_	-	-	2
Connecticut	-	-	-	-	-	-	1	-	-	1	-	-
MIDDLE ATLANTIC	3	6	4	1	_	5	15	_	4	10		
New York City	2	1	1	_	-	i	2	-	-	13 2	_	6 3
New York, Up-State.	-	2	-	-	-	1	10	-	1	9	-	1
New Jersey Pennsylvania	1	3	3	1	-	3 -	3	-	3	2	-	-
10	1	_		1	_	-	-	-	-	-	-	2
EAST NORTH CENTRAL	9	2	4	1	-	2	24	-	2	17	-	8
Ohio	- 6	-	1	-	-	-	3	-	-	2	-	2
Illinois	2	1	2	_	-	1	9	_	1	6 5	-	3 2
Michigan	1	1	-	1	-	1	3	-	1	2	_	-
Wisconsin	-	-	-	-	-	-	3	-	-	2	-	1
WEST NORTH CENTRAL	2	3	3	2	_	11	10	_	7	8	_	21
Minnesota	-	-	-	2	-	1	3	-	1	2	-	21 7
Iowa	-	-	-	-	-	5	1	-	2	1	-	1
Missouri North Dakota	2 -	-	1 -	-	_	1 -	4	-	-	3	-	1
South Dakota		_	_	-		_	-	-		1 -	-	9
Nebraska	-	-	-	-	-	3	-	-	3	-	-	2
Kansas	-	3	2	-	-	1	1	-	1	1	-	1
SOUTH ATLANTIC	4	1	3	1	_	1	32	_	1	25	1	39
Delaware	2	-	-	-	-	-	-	-	-	-	-	-
Maryland Dist. of Columbia.	-	-	1	-	-	1	1	-	1	1	-	-
Virginia	-	- 1	-	-	-	-	- 4	_	-	4	-	3
West Virginia	-	-	-	-	-	_	1	-	-	1	_	_
North Carolina South Carolina	-	-	1	-	-	-	12	-	-	7	-	4
Georgia	-	-	- 1	-	-	-	1 3	-	-	1 3	- 1	2 21
Florida	2	-	<u>.</u>	1	-	-	10	-	-	8	-	9
EAST SOUTH CENTRAL	,											
Kentucky	1 -	2 1	1 -	-	_	1	6	-	2	5	1	31
Tennessee	-	-	1	-	-	2	3	-	1	2	-	2
Alabama	1	-	-	-	-	-	2	-	-	2	1	27
Mississippi	-	1	-	-	-	1	1	-	1	1	-	2
WEST SOUTH CENTRAL	2	4	-	1	1	20	11	1	17	10	1	38
Arkansas	-	1	-	-	1	1	-	î	1	-	-	2
Louisiana	1	-	_	-	-	2	-	-	1	-	1	11
Texas	1	3	-	1	-	2 15	3 8	-	2 13	2 8	-	1 24
			1.0									
MOUNTAIN	2	3	10 1	-	-	5	11	-	3	6	-	_
Idaho	_	_	-	-	-	-	1] -	-	1	_	_
Wyoming	-	-	-	-	-	-	2	-	-	2	-	-
Colorado New Mexico	-	3	9	-	-	-	2 5	-	-	2	-	-
Arizona	2	-	-	-	_	1 4	1	-	1 2	1		_
Utah	-	-	-	-	-	-	-	-	-	-	-	-
Nevada	-	-	-	-	-	-	-	-	-	-	-	-
PACIFIC	15	13	3	3	1	9	3	1	5	3		9
Washington	-	-	-	-	1	3	-	1	3	-	_	3
Oregon	-	-	-	-	-	1	1	-	1	1	-	1
California Alaska	15 -	10	3	3	-	5 -	2	-	1 -	2	-	5
Hawaii	-	3	-	-	-	-	-	-	-	-	-	
Purato Pio												
Puerto Rico		-	-		-	-	-	-	-		-	16

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES FOR WEEKS ENDED

DECEMBER 18, 1965 AND DECEMBER 12, 1964 (50th WEEK) - Continued

	Brucel- losis	Infectious Hepatitis including Serum Hepatitis					Meningococcal Infections			Tetanus	
Area		Total	Under	20 years	Cumulative Totals		Cumulative		at two		Cum.
	1065	incl. unk.		and over	1965	1964	1965	1965	1964	1965	1965
INTER CTATE	1965	1965	1965 309	280	32,430	36,415	66	2,918	2,683	3	269
UNITED STATES											
NEW ENGLAND	_	20	13	6	1,819 321	3,226 996	4	151	91	-	7 -
New Hampshire	-	1	-	1	167	256	-	9	2	-	2
Vermont	-	5	3	- 2	91 722	375 741	1	8 56	4 38		4
Rhode Island	-	5	3	2	203	217	-	18	11	-	-
Connecticut	-	4	4	-	315	641	3	42	29	-	1
MIDDLE ATLANTIC	1	127 24	52 5	75 19	5,789 1,200	7,933 1,261	6	387 64	343 48	1	22 4
New York City New York, Up-State.	1	52	24	28	2,174	3,440	3	112	103	1	7
New Jersey	-	9	5	4	1,047	1,295	2	103 108	107	-	2
Pennsylvania	-	42	18	24	1,368	1,937		100	0,	_	
EAST NORTH CENTRAL	1 -	134	83 20	47 17	6,336 1,709	5,852 1,532	10	443 . 121	357 93	-	35 3
Ohio Indiana	1	15	12	3	531	485	2	51	55	-	9
Illinois	-	16	11	5	1,189	1,118	- 5	118 105	96	-	16 3
Michigan		58	36	22	2,509	2,316 401	-	48	78 35	-	4
WEST NORTH CENTRAL	1	22	13	9	1,802	2,020	3	140	150	1	23
Minnesota	-	2	-	2	218	226	ī	33	33	1	10
Iowa Missouri	1 -	6 3	3 2	3	581	383 496	- 1	12 55	9 68	-	4
North Dakota	-	-	-	-	34	64	-	13	20	-	1
South Dakota	-	1	1	_	99	135 74	1 -	4 10	3 7	-	2
Kansas	-	10	7	3	451	642	-	13	10	-	2
SOUTH ATLANTIC	_	60	32	25	3,340	3,374	14	552	524	_	63
Delaware	-	1	1	-	87	76	-	11	7	-	-
Maryland Dist. of Columbia	-	11	6	5	598	620 69	1 -	54 11	41 17	_	3
Virginia	-	12	6	3	767	543	1	73	64	-	6
West Virginia North Carolina	_	13	11	5	453 365	482 543	7	29 119	35 94	-	1 11
South Carolina	-	1	-	1	141	152	2	67	59	-	7
Georgia Florida	-	2 11	1 3	1 8	118 761	112 777	2 1	63 125	87 120	-	10 25
	_	2.1	1.6	1.5	2 204		8	229	199	_	34
EAST SOUTH CENTRAL Kentucky	_	31	16 7	15	2,294 828	2,473 872	1	87	68	_	8
Tennessee	-	14	6	8	779	873	4 3	72	62 43	-	12 12
Alabama	-	6 3	1 2	5	400 287	479 249	-	43 27	26	-	2
WEST SOUTH CENTRAL	2	30	12	17	2,692	2,859	7	366	300	1	59
Arkansas	1	3	-	3	342	288	1	19	33	-	13
Louisiana	-	4	-	4	455 55	675 132	4	198 22	129 15	1 -	11 1
Texas	1	22	12	9	1,840	1,764	1	127	123	-	34
MOUNTAIN	_	44	24	12	1,771	2,238	4	106	101	_	3
Montana	-	3	3	-	156	190	-	2	1	-	-
Idaho	-	3	1	2	196 54	316	-	13	5	-	-
Colorado	-	6	3	3	374	588	2	30	22	-	2
New Mexico Arizona	-	9 7	7 -	2 -	383 372	324 487	1	11 21	43	_	1
Utah	-	15	10	5	220	189	1	18	7	-	-
Nevada	-	1	-	-	16	51	-	5	11	-	-
PACIFIC	-	141	64	74	6,587	6,440	10	544	618	-	23
Oregon	_	16	10	5	509 572	647	-	47 37	48 27	_	4
California	-	111	50	61	5,185	4,736	10	434	523	-	19
Alaska Hawaii	-	2		1	235 86	290 123	_	18	7 13	-	-
					1						

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES FOR WEEKS ENDED

DECEMBER 18, 1965 AND DECEMBER 12, 1964 (50th WEEK) - Continued

Awas		Measles		Strept. Sore Th. & Scarlet Fev.	Tular	emia	Typhoid	l Fever	Rabies in Animals		
Area		Cumu1	ative			Cum.		Cum.		Cum.	
	1965	1965	1964	1965	1965	1965	1965	1965	1965	1965	
UNITED STATES	2,866	259,309	481,767	7,917	3	236	4	435	67	4,115	
NEW ENGLAND	140	37,371	21,261	973	-	2	-	7	_	48	
Maine	14	2,933	3,654	148	-	-	-	-	-	4	
New Hampshire	- 13	383	809	. 9	-	-	-	-	-	5	
Vermont Massachusetts	94	1,420 19,468	2,417 6,777	154	-	- 2	-	3		32 2	
Rhode Island	13	3,970	2,419	43	-	-	_	1	_	1	
Connecticut	6	9,197	5,185	614	-	-	-	3	-	4	
MIDDLE ATLANTIC	358	17,714	53,296	167	-	1	-	68	11	256	
New York City	182	3,443	15,504	7	-	-	-	30	-		
New York, Up-State.	24 152	4,431 3,577	13,096 12,342	121 39	_	1 -	-	16	11	240	
New Jersey Pennsylvania	-	6,263	12,354	-	-	-	-	7 15	-	16	
EAST NORTH CENTRAL	1,283	62,349	105,693	593	2	16	_	50	11	632	
Ohio	32	9,162	20,046	35	-	-	-	10	5	338	
Indiana	38	2,351	23,161	118	1	6	-	16	1	74	
Illinois	411	4,042	16,772	98	1	7	-	11	1	91	
Michigan	73 729	27,686 19,108	29,954 15,760	228 114	-	2	-	7 6	3 1	63 66	
WEST NORTH CENTRAL	96	17,399	31,312	369	-	30	_	17	7	811	
Minnesota	39	847	345	17	_	1	-	1	3	178	
Iowa	25	9,286	23,615	116	-	-	-	2	_	225	
Missouri	17	2,678	1,094	103	-	20	-	11	2	124	
North Dakota	12	4,007	5,350	111	-	3	-	-	-	48	
Nebraska	3	465	67 841	5	_	2	-	3	1	59 36	
Kansas	NN	NN	NN	2	-	4	-	-	1	141	
SOUTH ATLANTIC	254	26,768	40,133	864	-	35	1	80	11	536	
Delaware	-	516	419	42	-	-	1	5	-	-	
Maryland	20	1,260	3,442	114	-	-	-	21	-	27	
Dist. of Columbia Virginia	1 86	128	357 12,957	9 243	-	9	-	9	- 6	326	
West Virginia	84	14,743	9,746	137	_	-	_	3	2	27	
North Carolina	3	415	1,263	26	-	8	-	16	-	3	
South Carolina	23	1,190	4,301	100	-	3	-	9	-	3	
Georgia	- 37	628 3,608	7,434	6 187	-	15	-	12 5	2 1	72 78	
EAST SOUTH CENTRAL	373	15,894	69,148	1,147	1	25	1	47	15	826	
Kentucky	186	3,659	18,835	75	_	3	-	10	2	95	
Tennessee	185	8,732	25,051	798	1	21	1	19	12	673	
Alabama	1	2,354	18,502	104 170	-	1	-	10	-	16	
Mississippi		1,149	6,760		-	-	-	8	1	42	
WEST SOUTH CENTRAL	102	32,035	73,657	825	-	97	-	60	12	671	
Arkansas Louisiana	6 8	1,194	1,154 121	1 9	-	66	-	15 11	3	97 86	
Oklahoma	1	234	1,058	12	-	11	-	10	1	137	
Texas	87	30,478	71,324	803	-	12	-	24	8	351	
MOUNTAIN	115	20,822	21,287	1,566	-	16	1	33	-	95	
Montana	7	3,901	4,059	23	-	4	-	1	-	5	
Idaho	10 2	2,995 873	2,181	84 23	_	4	_	1	-	-	
Colorado	32	5,989	3,393	760	-	-	_	1	-	9	
New Mexico	3	691	1,116	429	~	-	1	13	-	21	
Arizona	56	1,507	6,760	109	-	-	-	14	-	57	
Utah Nevada	5 -	4,641 225	2,480 1,013	138	-	8 -	-	1 2	-	2	
PACIFIC	145			1 //12	_	1,	1	:			
Washington	41	28,957 7,535	65,980 20,954	1,413	-	14	1 -	73	-	240 8	
Oregon	22	3,469	8,944	29	-	5	-	8	-	9	
California	80	13,694	34,070	851	-	9	1	57	-	221	
Alaska Hawaii	2	207	1,152	26	-	_	-	-		2	
nawall		4,052	860	86			<u> </u>	1	-	-	
Puerto Rico	46	2,872	7,273	3	-	-	1	16	_	14	

Week No. Table 4. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED DECEMBER 18, 1965

50

(By place of occurrence and week of filing certificate. Excludes fetal deaths)

	by place of	- CCCGITCIIC	1						
	All Ca	uses	Pneumonia	Under		All Ca	uses	Pneumonia	Under
Area	A11	65 years	and	l year	Area	Area All 65 years		and	l year
AI eu	Ages	and over	Inf luenza	A11		Ages	and over	Influenza	A11
		and over	All Ages	Causes				All Ages	Causes
NEW ENGLAND:	807	524	40	36	SOUTH ATLANTIC:	1,103	547	65	91
Boston, Mass	276	178	6	8	Atlanta, Ga Baltimore, Md	139	65	6	15
Bridgeport, Conn Cambridge, Mass	39	25	4 7	_	Charlotte, N. C	243	117	7	21
Fall River, Mass	35 28	26 16			Jacksonville, Fla	46 62	14 31	3 1	5 . 8
Hartford, Conn	46	26	3	3	Miami, Fla	66	37	4	3
Lowell, Mass	39	26	4	4	Norfolk, Va	58	30	7	-
Lynn, Mass.	18	12	-	-	Richmond, Va	68	34	3	8
New Bedford, Mass	37	28	1		Savannah, Ga	37	16	4	2
New Haven, Conn Providence, R. I	64	36	-	9	St. Petersburg, Fla Tampa, Fla.*	76 71	61	5 10	3 5
Somerville, Mass	78 18	49 11	6 2	1 4	Washington, D. C	195	39 87	11	18
Springfield, Mass	50	33	4	2	Wilmington, Del	42	16	4	3
Waterbury, Conn	31	22	_	2					
Worcester, Mass	48	36	3	3	EAST SOUTH CENTRAL:	676	351	36	46
					Birmingham, Ala	124	56	3	13
MIDDLE ATLANTIC:	3,429	2,008	157	182	Chattanooga, Tenn	60	32	5	2
Albany, N. YAllentown, Pa	51	29	-	3	Knoxville, Tenn Louisville, Ky	49 130	31	3	2
Buffalo, N. Y	39 171	22 99	8	8	Memphis, Tenn	130	74 62	17	5 12
Camden, N. J	47	28	3	3	Mobile, Ala	48	21	1	4
Elizabeth, N. J	44	25	2	2	Montgomery, Ala	30	19	3	1
Erie, Pa	40	22	2	3	Nashville, Tenn	108	56	3	7
Jersey City, N. J	64	40	13	-	LIPOT COUTH CENTRAL.				
Newark, N. J New York City, N. Y	93	49	3	4	WEST SOUTH CENTRAL: Austin, Tex	1,193	591	66	83
Paterson, N. J	1,768 42	1,047	80	79	Baton Rouge, La	32 38	18 23	5	3 .
Philadelphia, Pa	526	27 283	2 15	40	Corpus Christi, Tex	35	10		6
Pittsburgh, Pa	190	114	5	12	Dallas, Tex	168	73	12	8
Reading, Pa	48	30	4	2	El Paso, Tex	46	26	1	3
Rochester, N. Y	91	56	9	9	Fort Worth, Tex	74	41	-	4
Schenectady, N. Y	26	13	2	4	Houston, Tex	228	104	12	18
Scranton, Pa Syracuse, N. Y	34	20	1	2	Little Rock, Ark New Orleans, La	65	26	4	5
Trenton, N. J	54 46	39 26	1 1	3 4	Oklahoma City, Okla	176 82	87 43	8 6	11
Utica, N. Y	21	14	2	1	San Antonio, Tex	132	75	6	8
Yonkers, N. Y	34	25	4	3	Shreveport, La	59	33	5	7
					Tulsa, Okla	58	32	7	2
EAST NORTH CENTRAL:	2,577	1,443	119	147					
Akron, Ohio	69	35	2	7	MOUNTAIN:	416	242	36	23
Canton, Ohio	39	22	6	-	Albuquerque, N. Mex Colorado Springs, Colo.	46	25	6	1
Cincinnati, Ohio	796 107	433 69	36 2	40	Denver, Colo	18 126	14 72	2 14	1 10
Cleveland, Ohio	211	124	4	8	Ogden, Utah	18	10	3	10
Columbus, Ohio	121	68	3	11	Phoenix, Ariz	81	45	8	6
Dayton, Ohio	69	39	4	4	Pueblo, Colo	20	19	-	-
Detroit, Mich	368	197	18	29	Salt Lake City, Utah	59	35	2	2
Evansville, Ind Flint, Mich	52	38	5	2	Tucson, Ariz	48	22	1	2
Fort Wayne, Ind	49 43	25	2	5	PACIFIC:	1 600	999	1.6	7,
Gary, Ind	22	22 8	4 -	2 2	Berkeley, Calif	1,608 24	20	46	71
Grand Rapids, Mich	57	33	5	2	Fresno, Calif *	48	28	1	3
Indianapolis, Ind	166	88	11	14	Glendale, Calif	32	24	î	2
Madison, Wis	21	15	-	1	Honolulu, Hawaii-	43	21	1	4
Milwaukee, Wis	108	70	8	2	Long Beach, Calif	66	47	1	2
Peoria, Ill	43	19	-	4	Los Angeles, Calif	621	375	20	25
Rockford, Ill South Bend, Ind	24 //1	10	2	1	Oakland, Calif Pasadena, Calif	8	20	2	1
Toledo, Ohio	41 116	25 69	3 3	7	Portland, Oreg *	36 116	29 76	2	1 4
Youngstown, Ohio	55	34	1	4	Sacramento, Calif	81	50	1	2
	-				San Diego, Calif	91	51	2	6
WEST NORTH CENTRAL:	799	468	22	37	San Francisco, Calif	174	113	4	4
Des Moines, Iowa	61	39	2	-	San Jose, Calif *	39	25	4	2
Duluth, Minn	16	10	-	7	Seattle, Wash	120	67	5	7 .
Kansas City, Kans Kansas City, Mo	39	18	7	4	Spokane, Wash Tacoma, Wash	64	43	2	4
	149 26	90	3	4 5	Lacolla, Hasit.	45	26	_	4
	26	13 62	1 2	5	Total	12,608	7,173	587	716
Lincoln, Nebr	104	. 02		4		12,000	1,173	307	710
	104 73	46	2						
Lincoln, Nebr Minneapolis, Minn Omaha, Nebr St. Louis, Mo	104 73 237	46 142	2 2	11					
Lincoln, Nebr	73				1 1			revious we	eks
Lincoln, Nebr Minneapolis, Minn Omaha, Nebr St. Louis, Mo	73 237	142	2	11	including report	ed correcti	ons for p		
Lincoln, Nebr	73 237 60	142 35	2 1	11 2	including report All Causes, All Ages	ed correcti	lons for p	615,5	45
Lincoln, Nebr	73 237 60	142 35	2 1	11 2	including report	ed correcti over	ons for p	615,5 347,6	45

BOTULISM - FULLERTON, CALIFORNIA

(Continued from page 427)

neutralized by type A antitoxin and cultures of *Clostridium botulinum* type A were obtained from specimens of the salad. The quantity of toxin in the portions of salad examined varied from 2,500 to 25,000 MLD's per gram.

Specimens of serum obtained from the two patients were examined at the Hooper Foundation and the CDC Laboratory and were not toxic when injected intraperitoneally into mice.

Eight out of the 18 jars of canned fish examined at the latter two laboratories were found to contain toxin neutralized by type A antitoxin and these eight also yielded cultures of *Clostridium botulinum*. The contents of seven of the contaminated jars had a putrid odor and were of mushy consistency; the contents of the eighth contaminated jar were of normal odor and appearance. The remaining 10 jars were of normal appearance and yielded neither toxin nor a culture of organisms. In one of the eight contaminated jars examined for toxin at CDC there were 250,000 MLD's of toxin per gram. Frozen fillets of the albacore were examined for toxin only at the CDC Laboratory, with negative results.

(Reported by the California State Health Department Laboratory, the Hooper Foundation and the Laboratory Branch of CDC.)

MEASLES IN RHODE ISLAND FROM 1961 - 1965

Morbidity and mortality from measles in Rhode Island from 1961 to 1965 are line listed below:

	1961	1962	1963	1964	1965*	
Reported Cases	7,118	3,184	1,378	2,610	3,952	
Encephalitis	9	4	7	2	5	
Deaths	2	2	1	0	0	

^{*1965} figures include January through November 27, 1965.

It has been estimated that 15 percent of all children with measles experience one or more complications; these include encephalitis, pneumonia, bronchitis, otitis media, corneal ulcers, and myocarditis. From January 1964 to June 1965, at least 181 Rhode Island children were hospitalized because of measles and its complications, with an average hospital stay of 9.5 days and at a total cost of over fifty thousand dollars.

(Reported by the Division of Epidemiology, Department of Health, Rhode Island.)

THE MORBIDITY AND MORTALITY WEEKLY REPORT, WITH A CIRCULA-TION OF 14,000, IS PUBLISHED AT THE COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA.

CHIEF, COMMUNICABLE DISEASE CENTER CHIEF, EPIOEMIOLOGY BRANCH ACTING CHIEF, STATISTICS SECTION CHIEF, SURVEILLANCE SECTION

DISEASE CENTER JAMES L. GOOOARD, M.O.
RANCH A.D. LANGMUIR, M.D.
CS SECTION IDA L. SHERMAN, M.S.
ECTION D.A. HENDERSON, M.D.

EDITOR; MMWR D.J.M. MACKENZIE, M.B., F.R.C.P.E.

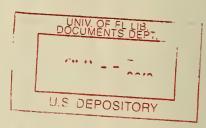
IN ADDITION TO THE ESTABLISHED PROCEDURES FOR REPORTING MORBIDITY AND MORTALITY, THE COMMUNICABLE DISEASE CENTER WELCOMES ACCOUNTS OF INTERESTING OUTBREAKS OR CASE INVESTIGATIONS WHICH ARE OF CURRENT INTEREST TO HEALTH OFFICIALS AND WHICH ARE DIRECTLY RELATED TO THE CONTROL OF COMMUNICABLE DISEASES, SUCH COMMUNICATIONS SHOULD BE ADDRESSED TO:

THE EDITOR
MORBIDITY AND MORTALITY WEEKLY REPORT
COMMUNICABLE DISEASE CENTER
ATLANTA, GEORGIA 30333

NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE BASED ON WEEKLY TELEGRAMS TO THE CDC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES ON SAT-URDAY; COMPILED DATA ON A NATIONAL BASIS ARE RELEASED ON THE SUCCEEDING FRIDAY.

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
Communicable Disease Center
Atlanta, Georgia 30333

Official Business



POSTAGE AND FEES PAID
U. S. DEPARTMENT OF H. E. W.